

Ultipor® N66 Particulate and Bioreduction Filter Cartridges

Ideal Prefilters for Ultipor N66 Sterilizing Filters



Pall **Ultipor** N66 particulate/bioreduction filter cartridges are specifically engineered for fine filtration, prefiltration and bioburden reduction of a wide range of pharmaceutical and biological liquids. They incorporate versatile **Ultipor** N66 pure Nylon 6,6 membranes which are high-area pleated into single open-ended (SOE) AB style cartridges to fit in sanitary filter housings, and provide reliable, economical and efficient particulate and bioburden removal.

Features and Benefits

- Intrinsically water wettable
- Fixed pores, non-shedding
- Resin and surfactant-free
- Low filter extractables
- High-area for long-life
- Broad solvent compatibility
- High protein recovery from most protein solutions
- Repeatedly steamable in situ
- Manufactured for use in conformance with cGMP
- ISO 9000 Certified Quality System
- Pharmaceutical P optimized
- Certificate of Test provided
- Double open-ended (DOE) available
- FDA-listed materials per 21 CFR

Note: These filters are also available in **Kleenpak** Nova capsule format.

Quality and Bio-Safety

Biological Tests

- Meets USP Biological Reactivity test, in vivo, for Class VI-121 °C Plastics

Effluent Quality Tests (AB Style)*

- Meets Cleanliness per USP Particulates in Injectables
- Non-Fiber-Releasing
- Non-Pyrogenic per USP
- Meets Total Organic Carbon and Water Conductivity per USP Purified Water, pH per USP Sterile Purified Water

* Per lot sample soak or rinse-up flush aliquots.

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Technical Specifications

Materials of Construction

Membrane	Nylon 6,6
Support, Drainage and End Caps	Polyester
Core and Cage	Polypropylene
O-rings	Silicone ⁽¹⁾

⁽¹⁾ Other polymers available.

Microbial Removal Ratings

NK	0.65 µm particulate rated
NB	0.45 µm microbial-rated (Typical <i>Serratia marcescens</i> $T_R > 10^{4-9}$)
NX, NL	0.45 µm microbial-rated (Lot samples retain $> 10^7/cm^2$ <i>Serratia marcescens</i>)
NA	0.2 µm microbial-rated (Typical <i>Brevundimonas diminuta</i> $T_R > 10^{4-9}$)

Nominal Dimensions

Lengths	10 in. (254 mm), 20 in. (508 mm), 30 in. (762 mm), 40 in. (1016 mm)
Diameter	70 mm (2.75 in.)

Configuration (AB Code 7)⁽²⁾

Double 226 O-ring adapter

Fin end with bayonet lock.

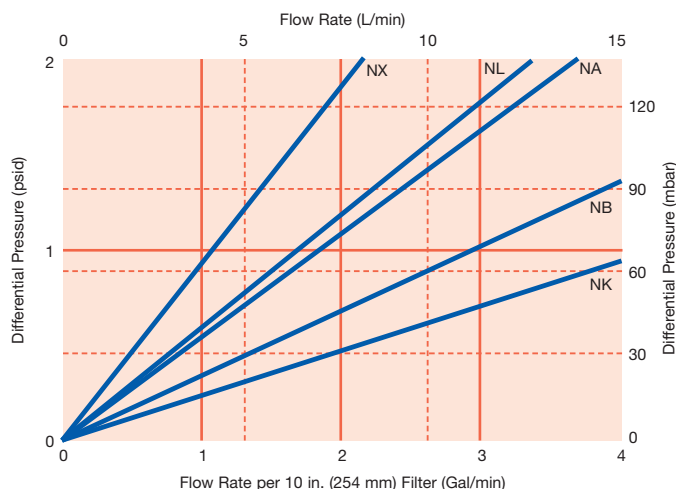
⁽²⁾ Alternate adapter codes available.

Operating Conditions⁽³⁾

Maximum Differential Pressure and Temperature	5.5 bard (80 psid) to 50 °C (122 °F) 4.1 bard (60 psid) to 80 °C (176 °F) 2.1 bard (30 psid) to 125 °C (257 °F)
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⁽³⁾ Using compatible liquids.

Typical Liquid Flow Rates⁽⁴⁾



⁽⁴⁾ Typical initial clean media ΔP 10 in. (254 mm) element; water at 20 °C (68 °F); viscosity 1 cP. For assistance in filter assembly sizing and housing selection, contact your local Pall representative.

Autoclave and Steaming in situ⁽⁵⁾

Cumulative Steam Exposure	16 hours (1-hour cycles) at 121 °C
	4 hours (1-hour cycles) at 140 °C

⁽⁵⁾ Laboratory tests to establish multi-cycle resistance. Filters should be qualified in actual use. Contact Pall for recommended procedures.

Aqueous Extractables (NVR) per 10 in. (254 mm) Element⁽⁶⁾

Typically < 15 – 20 mg

⁽⁶⁾ In water at 20 – 25 °C (68 – 77 °F) after autoclaving.

Ordering Information

AB									
Code	Nominal Length	Code	Removal Rating	Nominal Filter Area ⁽⁷⁾	Forward Flow ⁽⁸⁾ mL/min at (mbar) psi	Code	Filter Grade	Code	Gasket Option
1	10 in. (254 mm)	NA7	0.2 µm	0.84 m ² (9.0 ft ²)	85 at 2260 (30)	P	Pharmaceutical*	H4	Silicone
		NX7	0.45 µm	0.46 m ² (5.0 ft ²)	10 at 1720 (25)	Omit	General Use	Other materials available on request.	
2	20 in. (508 mm)	NL7	0.45 µm	0.79 m ² (8.5 ft ²)	15 at 1720 (25)	* Pall pharmaceutical-grade filters are designed for use in conformance with CGMP in Manufacturing, Processing, Packing or Holding of Drugs (21CFR210) and CGMP for finished Pharmaceuticals (21CFR211.72) including batch release certificate and full traceability.			
3	30 in. (762 mm)	NB7	0.45 µm	0.84 m ² (9.0 ft ²)	85 at 1240 (18)				
4	40 in. (1016 mm)	NB7W	0.45 µm	0.86 m ² (9.2 ft ²)	50 at 1240 (18)				
		NK7W	0.65 µm	0.84 m ² (9.0 ft ²)	25 at 1100 (16)				

⁽⁷⁾ Per 10 in. (254 mm) cartridge.

⁽⁸⁾ Forward Flow allowable limit for one 10 in. (254 mm) cartridge at given test pressure, water wet, air test gas. Please contact Pall for method details and test parameters.